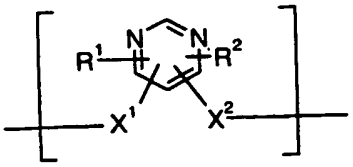
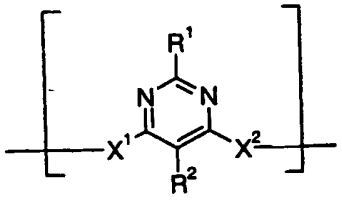
Claims

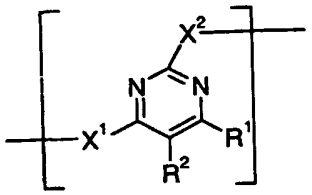
1. A polymer comprising a repeating unit of the formula



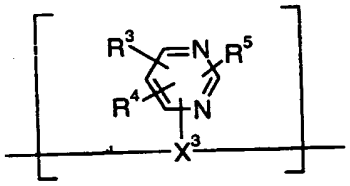
(I), especially



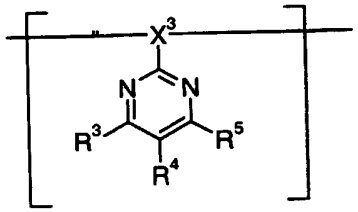
(Ia), or



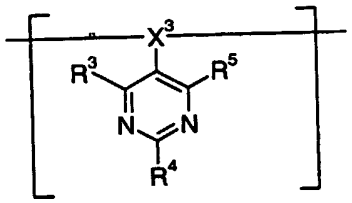
(Ib); and/ or



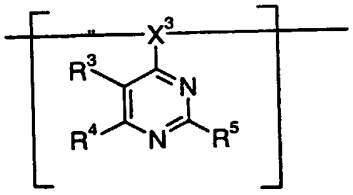
(II), especially



(IIa),



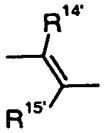
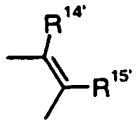
(IIb), or

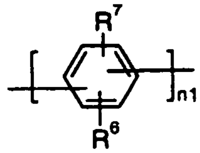
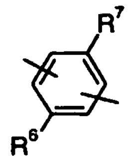
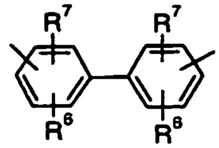


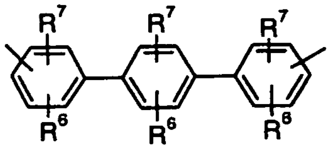
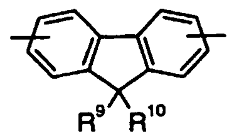
(IIc); wherein

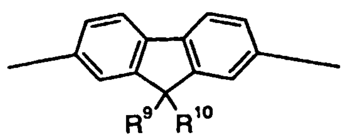
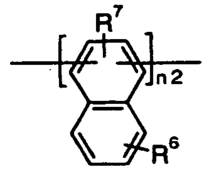
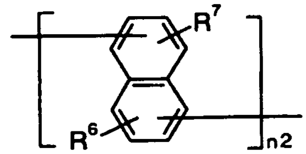
R^1, R^2, R^3, R^4 and R^5 are independently of each other an organic substituent, especially C_2-C_{30}aryl or a C_2-C_{26}heteroaryl, which optionally can be substituted,

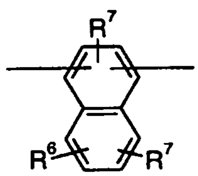
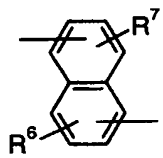
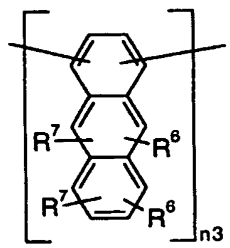
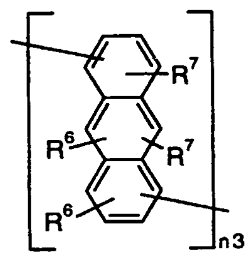
X^1, X^2 and X^3 are independently of each other a divalent linking group.

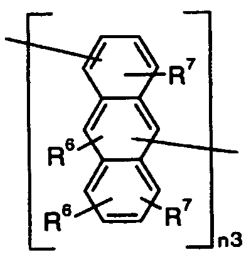
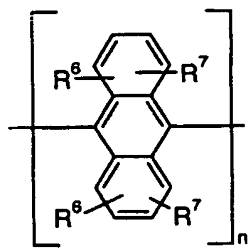
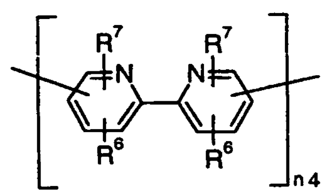
2. A polymer according to claim 1, wherein X^1 and X^2 are independently of each other a group of the formula  ,  , or , in particular

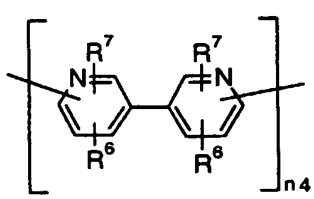
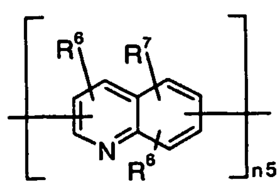
 , especially  ,  ,

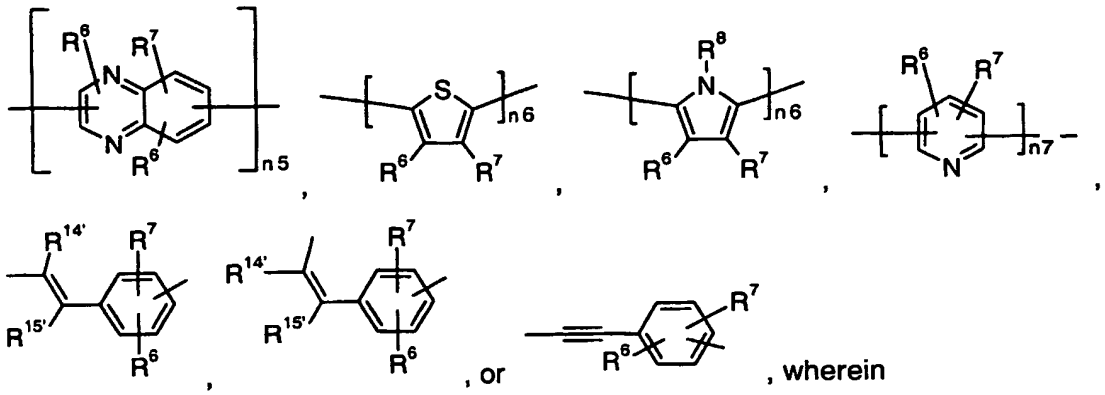
 ,  , especially

 ;  ,  , especially

 , or  ;  ,  ,

 ,  ,  ,

 ,  ,



, wherein

n1, n2, n3, n4, n5, n6 and n7 are integers of 1 to 10, in particular 1 to 3,

R^6 and R^7 are independently of each other H, C_1-C_{18}alkyl, C_1-C_{18}alkyl which is substituted by E and/or interrupted by D, C_5-C_{12}cycloalkyl, C_5-C_{12}cycloalkyl, which is substituted by E, C_6-C_{24}aryl, C_6-C_{24}aryl which is substituted by E, C_2-C_{20}heteroaryl, C_2-C_{20}heteroaryl which is substituted by E, C_2-C_{18}alkenyl, C_2-C_{18}alkynyl, C_1-C_{18}alkoxy, C_1-C_{18}alkoxy which is substituted by E and/or interrupted by D, C_7-C_{25}aralkyl, or -CO-R^{28},

R^8 is C_1-C_{18}alkyl, C_1-C_{18}alkyl which is substituted by E and/or interrupted by D, C_6-C_{24} aryl, or C_7-C_{25}aralkyl,

R^9 and R^{10} are independently of each other C_1-C_{18}alkyl, C_1-C_{18}alkyl which is substituted by E and/or interrupted by D, C_6-C_{24}aryl, C_6-C_{24}aryl which is substituted by E, C_2-C_{20}heteroaryl, C_2-C_{20}heteroaryl which is substituted by E, C_2-C_{18}alkenyl, C_2-C_{18}alkynyl, C_1-C_{18}alkoxy, C_1-C_{18}alkoxy which is substituted by E and/or interrupted by D, or C_7-C_{25}aralkyl, or

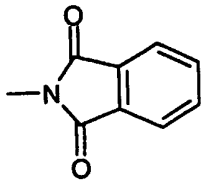
R^9 and R^{10} form a ring, especially a five- or six-membered ring, which may optionally be substituted by R^6,

$R^{14'}$ and $R^{15'}$ are independently of each other H, C_1-C_{18}alkyl, C_1-C_{18}alkyl which is substituted by E and/or interrupted by D, C_6-C_{24}aryl, C_6-C_{24}aryl which is substituted by E, C_2-C_{20}heteroaryl, or C_2-C_{20}heteroaryl which is substituted by E,

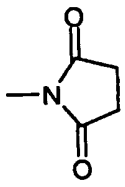
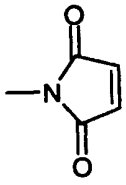
D is -CO-, -COO-, -S-, -SO-, -SO_2-, -O-, -NR^{25}-, -$SiR^{30}R^{31}$-, -POR^{32}-, -CR^{23}=CR^{24}-, or -C≡C-, and

E is -OR^{29}, -SR^{29}, -$NR^{25}R^{26}$, -COR^{28}, -$COOR^{27}$, -$CONR^{25}R^{26}$, -CN, -$OCOOR^{27}$, or halogen, wherein

R^{23}, R^{24}, R^{25} and R^{26} are independently of each other H, C_6-C_{18}aryl, C_6-C_{18}aryl which is substituted by C_1-C_{18}alkyl, C_1-C_{18}alkoxy, C_1-C_{18}alkyl, or C_1-C_{18}alkyl which is interrupted by –O-, or



R^{25} and R^{26} together form a five or six membered ring, in particular ,

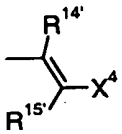
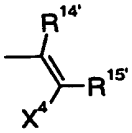
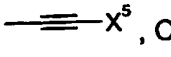
 , or  ,

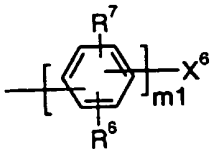
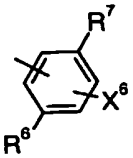
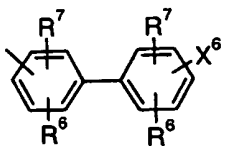
R^{27} and R^{28} are independently of each other H, C_6-C_{18}aryl, C_6-C_{18}aryl which is substituted by C_1-C_{18}alkyl, or C_1-C_{18}alkoxy, C_1-C_{18}alkyl, or C_1-C_{18}alkyl which is interrupted by –O-,

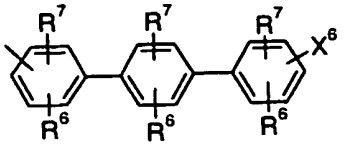
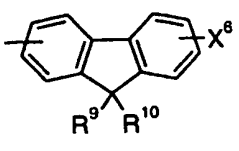
R^{29} is H, C_6-C_{18}aryl, C_6-C_{18}aryl, which is substituted by C_1-C_{18}alkyl, C_1-C_{18}alkoxy, C_1-C_{18}alkyl, or C_1-C_{18}alkyl which is interrupted by –O-,

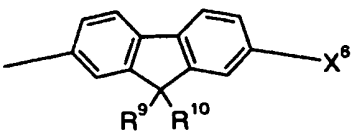
R^{30} and R^{31} are independently of each other C_1-C_{18}alkyl, C_6-C_{18}aryl, or C_6-C_{18}aryl, which is substituted by C_1-C_{18}alkyl, and

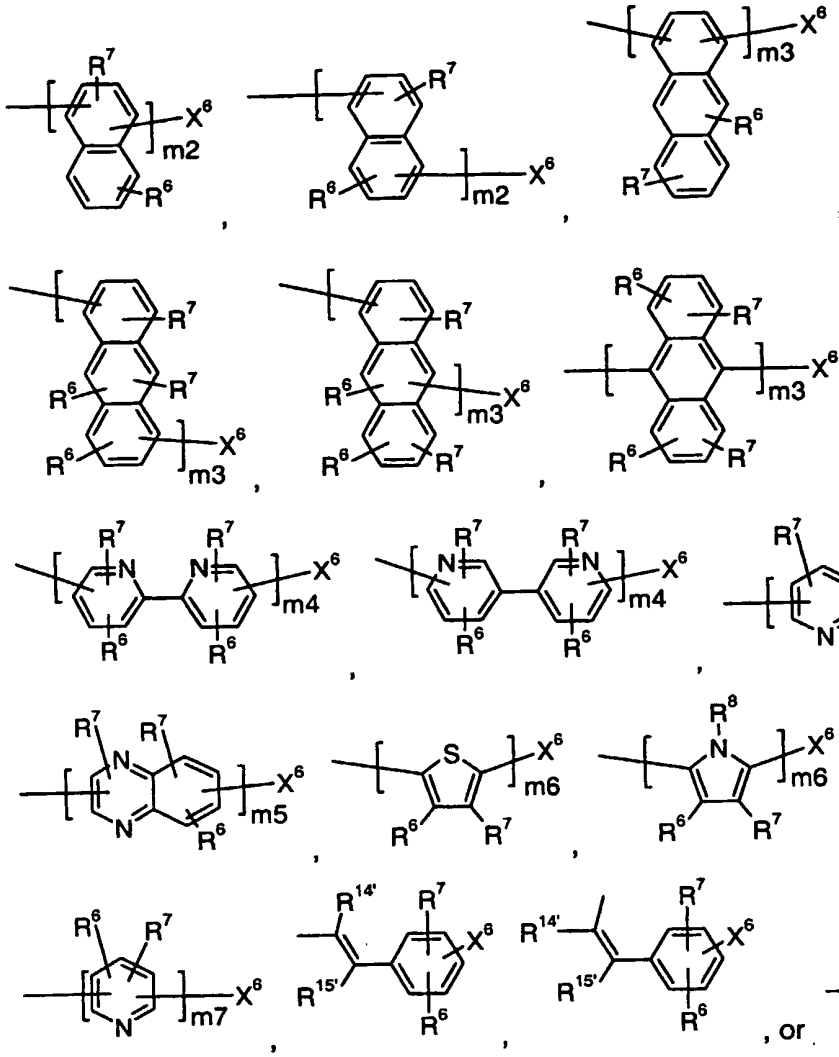
R^{32} is C_1-C_{18}alkyl, C_6-C_{18}aryl, or C_6-C_{18}aryl, which is substituted by C_1-C_{18}alkyl.

3. A polymer according claim 1 or 2, wherein R^1 and R^2 are independently of each other H, C_1-C_{18}alkyl, C_1-C_{18}alkyl which is substituted by E and/or interrupted by D, C_2-C_{18}alkenyl, C_2-C_{18}alkynyl, C_1-C_{18}alkoxy, C_1-C_{18}alkoxy which is substituted by E and/or interrupted by D,  ,  ,  , C_7-C_{25}aralkyl, C_6-C_{24}aryl or C_2-C_{20}heteroaryl, which optionally can be substituted, especially a group of the formula

 , especially  ,  ,

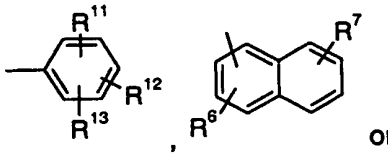
 ,  , especially

 ,

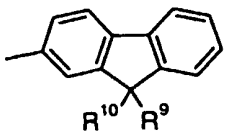


wherein m1, m2, m3, m4, m5, m6 and m7 are integers of 1 to 10, in particular 1 to 3,

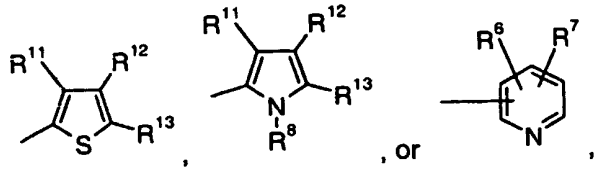
X^6 is H, C_1-C_{18}alkyl, C_1-C_{18}alkyl which is substituted by E and/or interrupted by D, C_6-



C_{30}aryl, which optionally can be substituted, especially



, C_2-C_{26}heteroaryl, which optionally can be substituted, especially



, C_2-C_{18}alkenyl, C_2-C_{18}alkynyl, C_1-

C_{18}alkoxy, C_1-C_{18}alkoxy which is substituted by E and/or interrupted by D, or C_7-C_{25}aralkyl,

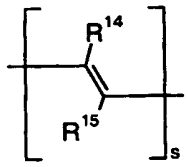
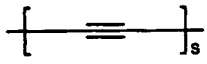
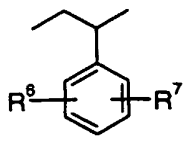
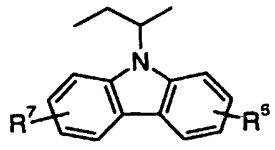
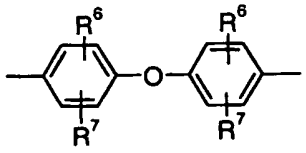
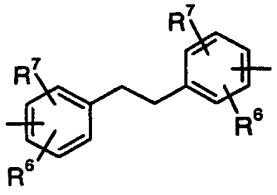
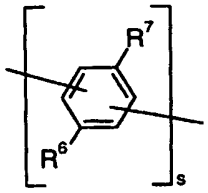
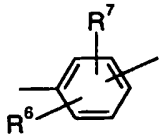
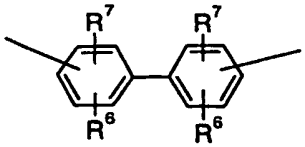
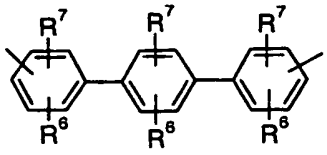
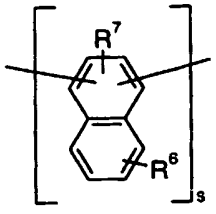
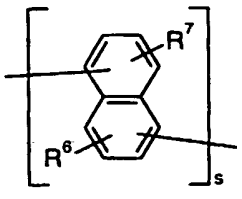
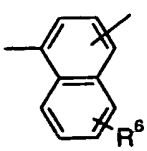
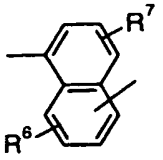
X^4 is C_1-C_{18}alkyl, C_1-C_{18}alkyl which is substituted by E and/or interrupted by D, C_6-C_{24}aryl, which optionally can be substituted,

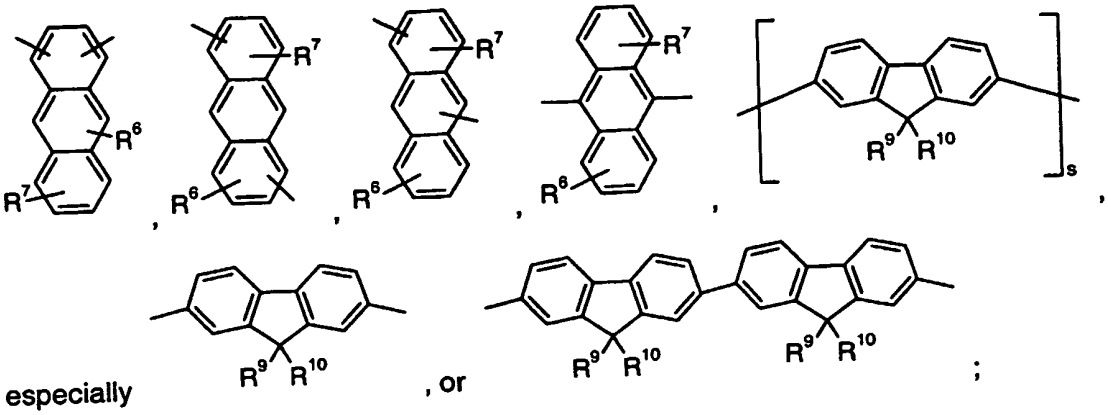
X^5 is C_1-C_{18}alkyl, C_6-C_{24}aryl, C_6-C_{24}aryl substituted by -OC_1-C_{18}alkyl or -OC_6-C_{24}aryl,

R^{11}, R^{12} and R^{13} are independently of each other H, C_1-C_{18} alkyl, C_1-C_{18}alkyl which is substituted by E and/or interrupted by D, C_6-C_{24}aryl, C_6-C_{24}aryl which is substituted by E, C_2-C_{18}alkenyl, C_2-C_{18}alkynyl, C_1-C_{18}alkoxy, C_1-C_{18}alkoxy which is substituted by E and/or interrupted by D, or C_7-C_{25}aralkyl, and

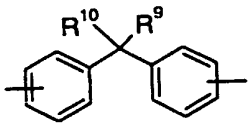
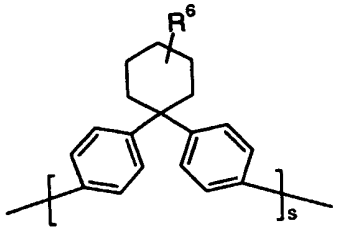
D, E, R^6, R^7, R^8, R^9, R^{10}, $R^{14'}$ and $R^{15'}$ are as defined in claim 2.

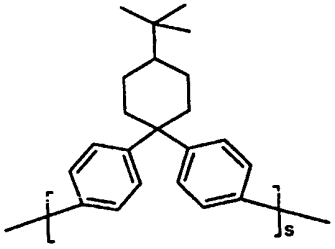
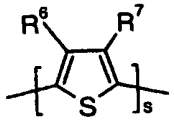
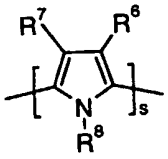
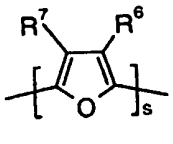
4. A polymer according to any of claims 1 to 3, comprising a co-monomer T which is

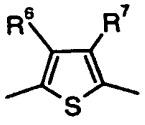
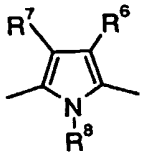
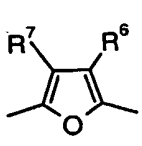
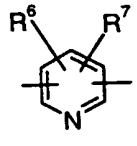
selected from the group consisting of  ,  ,  ,  ,  , or  ,  , in particular , especially  ,  , or  ;  ,  , especially  , or  ;

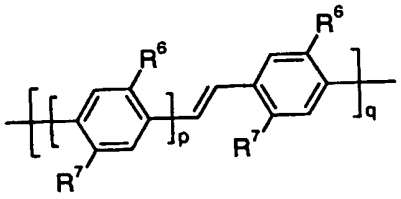
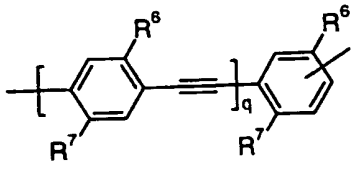


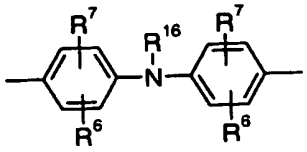
especially , or ;

 ,  , especially

 ,  ,  , or  ,

especially  ,  , or  ,  ,

 , or  , or

 , or, wherein

R^{16} is H, C_6-C_{18}aryl, C_6-C_{18}aryl which is substituted by C_1-C_{18}alkyl, C_1-C_{18}alkyl, C_7-C_{25}aralkyl, or C_1-C_{18}alkyl which is interrupted by –O-,

p is an integer from 1 to 10, especially 1, 2 or 3,

q is an integer from 1 to 10, especially 1, 2 or 3,

s is an integer from 1 to 10, especially 1, 2 or 3,

R^6, R^7, R^8, R^9 and R^{10} are as defined in claim 2, or

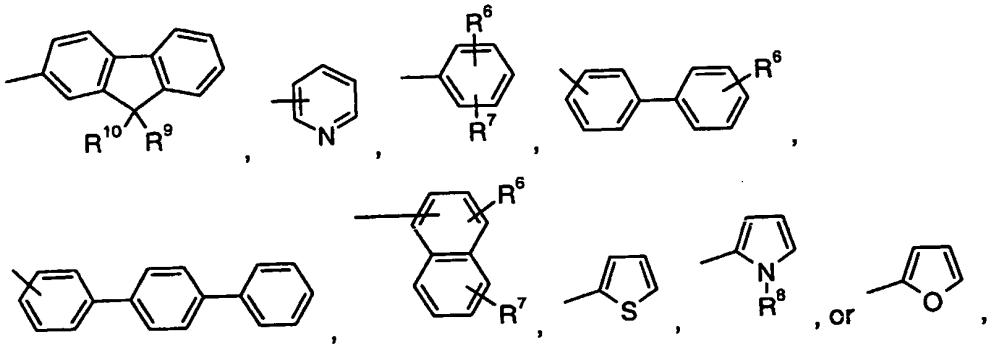
R^9 and R^{10} together form a five or six membered ring that is substituted by R^6,

R^9 and R^{10} together form a group of formula $=CR^{100}R^{101}$, wherein

R^{100} and R^{101} are independently of each other H, C_1-C_{18}alkyl, C_1-C_{18}alkyl which is substituted by E and/or interrupted by D, C_6-C_{24}aryl, C_6-C_{24}aryl which is substituted by E, or C_2-C_{20}heteroaryl, or C_2-C_{20}heteroaryl which is substituted by E, and

R^{14} and R^{15} are independently of each other H, C_1-C_{18}alkyl, C_1-C_{18}alkyl which is substituted by E and/or interrupted by D, C_6-C_{24}aryl, C_6-C_{24}aryl which is substituted by E, or C_2-C_{20}heteroaryl, C_2-C_{20}heteroaryl which is substituted by E.

5. A polymer according to any of claims 1 to 3, comprising repeating units of formula Ia or Ib, wherein R^1 is a group of formula



wherein R^2 is H,

R^6 and R^7 are independently of each other H, C_1-C_{12}alkyl, C_5-C_{12}cycloalkyl, especially cyclohexyl, C_6-C_{24}aryl, especially phenyl, naphthyl, or biphenyl, which can be substituted by –O-C_1-C_{12}alkyl, or C_1-C_{18}alkoxy,

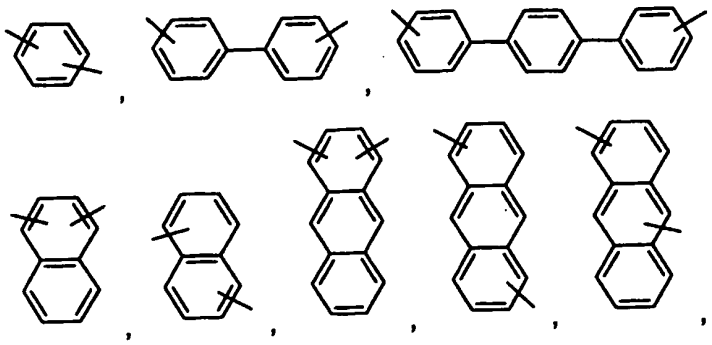
R^8 is C_1-C_{18}alkyl, C_1-C_{18}alkyl interrupted by one or two oxygen atoms, or C_6-C_{12}aryl, which optionally can be substituted by C_1-C_{12}alkyl, or C_1-C_{12}alkoxy,

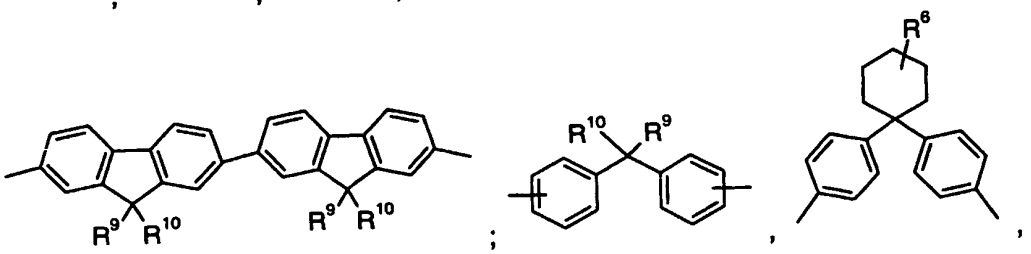
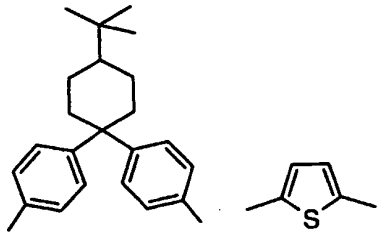
R^9 and R^{10} are independently of each other H, C_1-C_{12}alkyl, or C_1-C_{12}alkoxy,

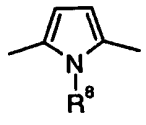
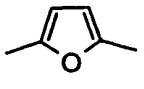
R^9 and R^{10} are independently of each other C_1-C_{18}alkyl, especially C_4-C_{12}alkyl, which can be interrupted by one or two oxygen atoms, and

X^1 and X^2 are as defined in claim 1.

6. A polymer according to claim 5, comprising a co-monomer T which is selected from the group consisting of



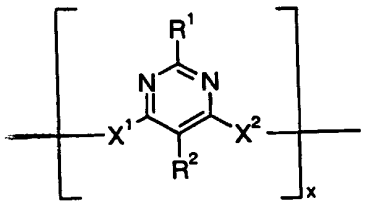
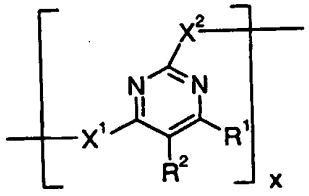
especially , , or , or , wherein

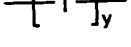
R^8 is C_1-C_{18}alkyl,

R^9 and R^{10} are independently of each other C_1-C_{18}alkyl, especially C_4-C_{12}alkyl, which can be interrupted by one or two oxygen atoms, or

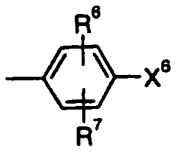
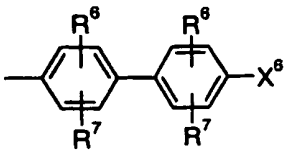
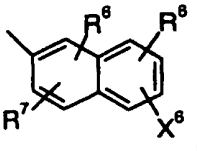
R^9 and R^{10} form a five or six membered carbocyclic ring, which optionally can be substituted by C_1-C_8alkyl.

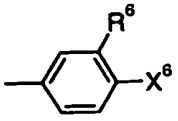
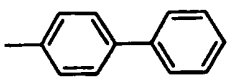
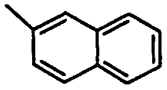
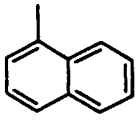
7. A polymer according to claim 1, comprising a repeating unit of formula


(Ia), or

(Ib), and

a co-monomer  , wherein

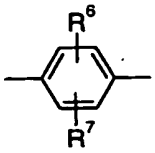
x is in the range of 0.005 to 1, especially 0.4 to 0.6, and y is in the range of 0.995 to 0, especially 0.6 to 0.4, wherein the sum of x and y is 1,

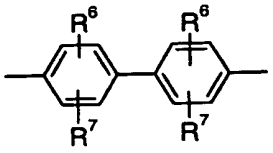
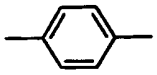
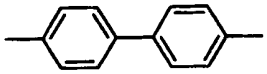
R^1 is a group of formula  , or  , or  ,

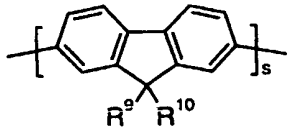
especially  , or  ,  or  ,

wherein X^6 is H, C_1-C_{18}alkyl, cyclohexyl, or C_1-C_{18}alkoxy,

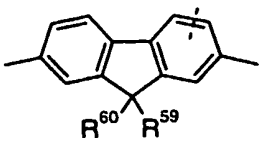
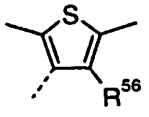
R^2 is H,

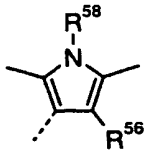
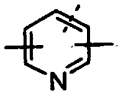
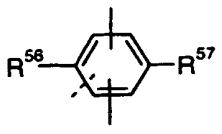
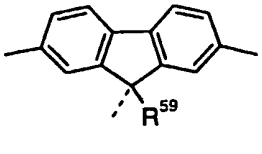
X^1 and X^2 are independently of each other a group of formula  , or

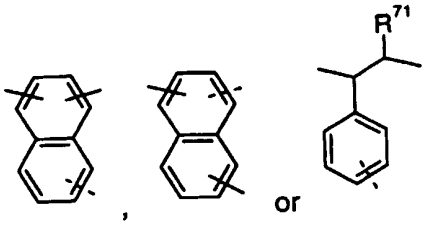
 , especially  , or  , and

T is a group of formula  , wherein s is one or two, and R^9 and R^{10} are independently of each other C_1-C_{18}alkyl, especially C_4-C_{12}alkyl, which can be interrupted by one or two oxygen atoms, and

R^6 and R^7 are independently of each other H, C_1-C_{12}alkyl, C_5-C_{12}cycloalkyl, such as cyclohexyl, C_6-C_{24}aryl, especially phenyl, naphthyl, or biphenyl, which can be substituted by –O-C_1-C_{12}alkyl, or C_1-C_{18}alkoxy.

8. A polymer according to claim 1, comprising a repeating unit having the formula IIa, IIb or IIc, wherein X^3 is a group of the formula  ,  ,

 , or  ; especially  ,  ,



, wherein the dotted line represent the bond to the pyrimidine ring,

R^3, R^4 and R^5 are as defined in claim 1,

R^{56} and R^{57} are independently of each other H, C_1-C_{18}alkyl, C_1-C_{18}alkyl which is substituted by E and/or interrupted by D, C_5-C_{12}cycloalkyl, C_5-C_{12}cycloalkyl, which is substituted by E, C_6-C_{24}aryl, C_6-C_{24}aryl which is substituted by E, C_2-C_{20}heteroaryl, C_2-C_{20}heteroaryl which is substituted by E, C_2-C_{18}alkenyl, C_2-C_{18}alkynyl, C_1-C_{18}alkoxy, C_1-C_{18}alkoxy which is substituted by E and/or interrupted by D, or C_7-C_{25}aralkyl,

R^{58} is H, C_1-C_{18}alkyl, C_1-C_{18}alkyl which is substituted by E and/or interrupted by D, C_6-C_{24}aryl, or C_7-C_{25}aralkyl,

R^{59} and R^{60} are independently of each other H, C_1-C_{18} alkyl, C_1-C_{18}alkyl which is substituted by E and/or interrupted by D, C_6-C_{24}aryl, C_6-C_{24}aryl which is substituted by E, C_2-C_{20}heteroaryl, C_2-C_{20}heteroaryl which is substituted by E, C_2-C_{18}alkenyl, C_2-C_{18}alkynyl, C_1-C_{18}alkoxy, C_1-C_{18}alkoxy which is substituted by E and/or interrupted by D, or C_7-C_{25}aralkyl, or

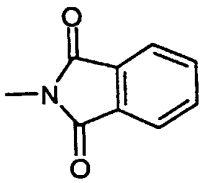
R^{59} and R^{60} form a ring, especially a five- or six-membered ring,

R^{71} is H, C_1-C_{18}alkyl, -C≡N, -CONR^{25}R^{26} or -COOR^{27},

D is -CO-; -COO-; -OCOO-; -S-; -SO-; -SO_2-; -O-; -NR^{25}-; -SiR^{30}R^{31}-; -POR^{32}-; -CR^{23}=CR^{24}-; or -C≡C-; and

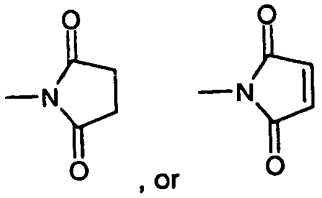
E is -OR^{29}; -SR^{29}; -NR^{25}R^{26}; -COR^{28}; -COOR^{27}; -CONR^{25}R^{26}; -CN; -OCOOR^{27}; or halogen; wherein

R^{23}, R^{24}, R^{25} and R^{26} are independently of each other H; C_6-C_{18}aryl; C_6-C_{18}aryl which is substituted by C_1-C_{18}alkyl, C_1-C_{18}alkoxy; C_1-C_{18}alkyl; or C_1-C_{18}alkyl which is interrupted by –O-; or



,

R^{25} and R^{26} together form a five or six membered ring, in particular



, or

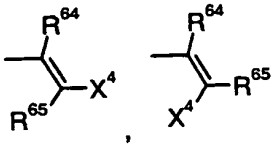
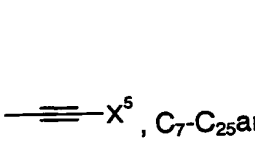
,

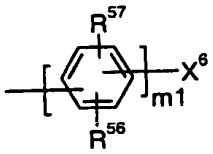
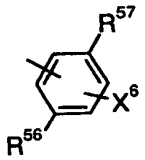
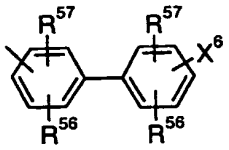
R^{27} and R^{28} are independently of each other H; C_6-C_{18}aryl; C_6-C_{18}aryl which is substituted by C_1-C_{18}alkyl, or C_1-C_{18}alkoxy; C_1-C_{18}alkyl; or C_1-C_{18}alkyl which is interrupted by –O-, and

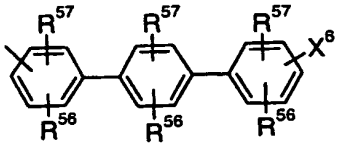
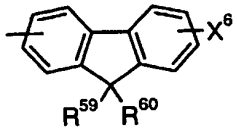
R^{29} is H; C_6-C_{18}aryl; C_6-C_{18}aryl which is substituted by C_1-C_{18}alkyl, C_1-C_{18}alkoxy; C_1-C_{18}alkyl; or C_1-C_{18}alkyl which is interrupted by –O-,

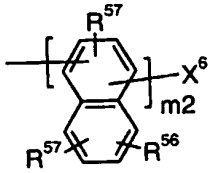
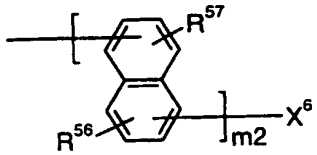
R^{30} and R^{31} are independently of each other C_1-C_{18}alkyl, C_6-C_{18}aryl, or C_6-C_{18}aryl, which is substituted by C_1-C_{18}alkyl, and

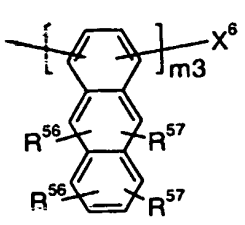
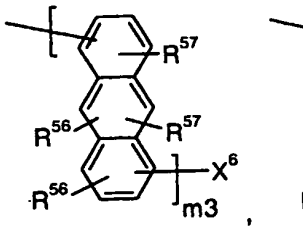
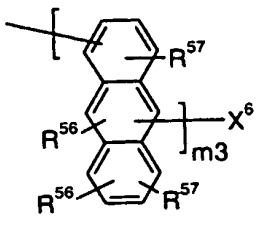
R^{32} is C_1-C_{18}alkyl, C_6-C_{18}aryl, or C_6-C_{18}aryl, which is substituted by C_1-C_{18}alkyl.

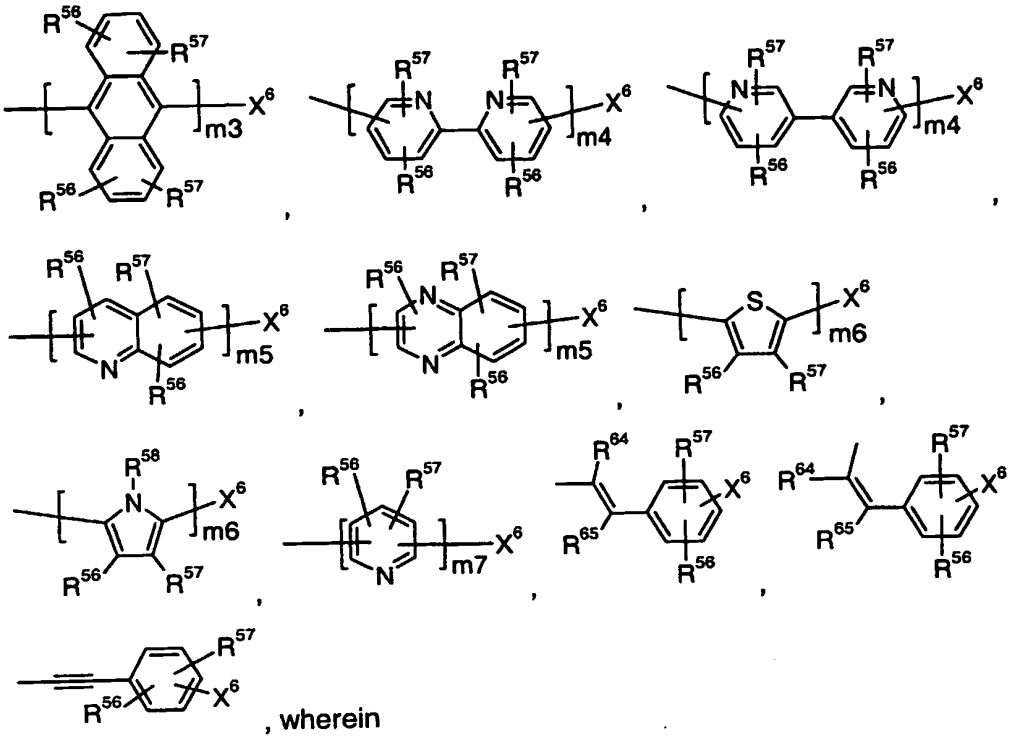
9. A polymer according to claim 8, wherein R^3, R^4 and R^5 are independently of each other H, C_1-C_{18} alkyl, C_1-C_{18}alkyl which is substituted by E and/or interrupted by D, C_2-C_{18}alkenyl, C_2-C_{18}alkynyl, C_1-C_{18}alkoxy, C_1-C_{18}alkoxy which is substituted by E and/or interrupted by D,   , C_7-C_{25}aralkyl, C_6-C_{24}aryl, or C_2-C_{20}heteroaryl, which optionally can be substituted, especially a group of the formula

 , especially  ,  ,

 ,  , especially

 ,  ,  ,

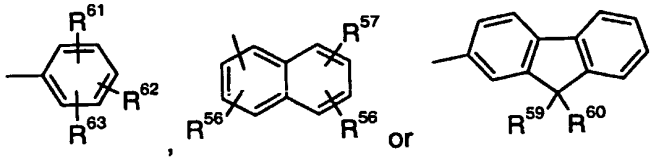
 ,  ,  ,



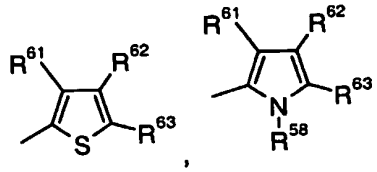
, wherein

m1, m2, m3, m4, m5, m6 and m7 are integers of 1 to 10, in particular 1 to 3,

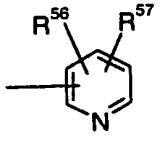
X^6 is H, C_1-C_{18}alkyl, C_1-C_{18}alkoxy, C_1-C_{18}alkyl which is substituted by E and/or interrupted by D, C_6-C_{24}aryl, which can optionally be substituted,



especially , , or , C_2-C_{20}heteroaryl,



which can optionally be substituted, especially , , or



, C_2-C_{18}alkenyl, C_2-C_{18}alkynyl, C_1-C_{18}alkoxy, C_1-C_{18}alkoxy which is substituted by E and/or interrupted by D, or C_7-C_{25}aralkyl,

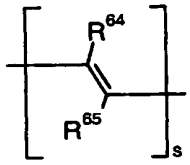
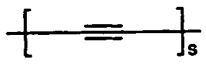
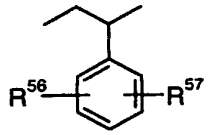
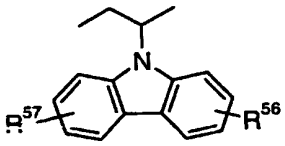
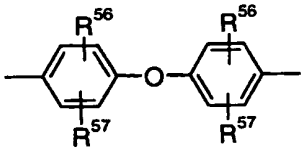
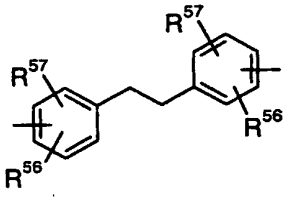
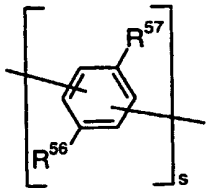
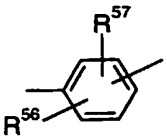
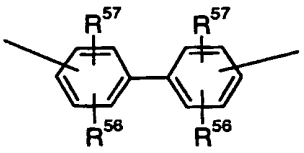
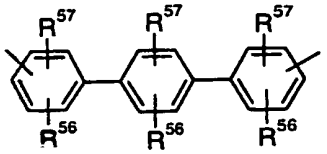
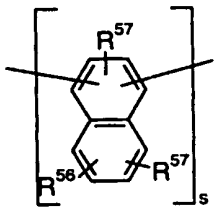
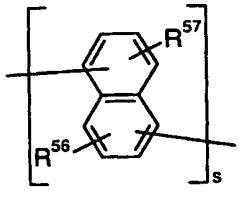
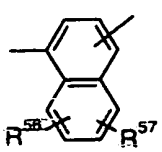
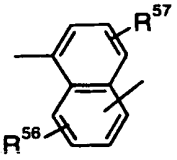
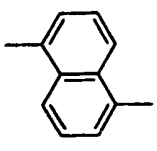
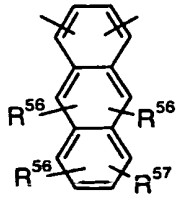
X^4 is C_1-C_{18}alkyl, C_1-C_{18}alkyl which is substituted by E and/or interrupted by D, C_6-C_{24} aryl, or C_2-C_{20}heteroaryl, which can optionally be substituted,

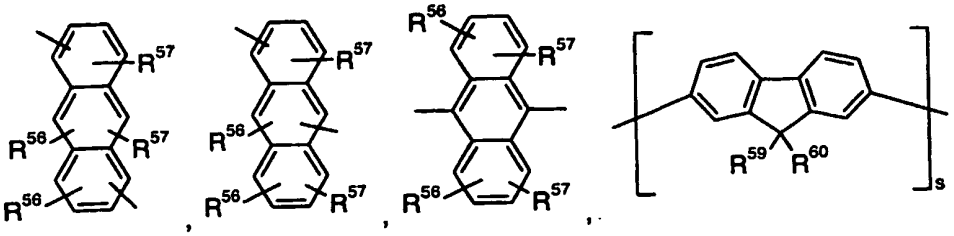
X^5 is C_1-C_{18}alkyl, C_6-C_{24}aryl, or C_2-C_{20}heteroaryl, which can optionally be substituted by -OC_1-C_{18}alkyl or -OC_6-C_{24}aryl,

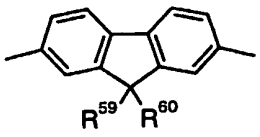
R^{61}, R^{62} and R^{63} are independently of each other H, C_1-C_{18}alkyl, C_1-C_{18}alkyl which is substituted by E and/or interrupted by D, C_6-C_{24}aryl, C_6-C_{24}aryl which is substituted by E, C_2-C_{18}alkenyl, C_2-C_{18}alkynyl, C_1-C_{18}alkoxy, C_1-C_{18}alkoxy which is substituted by E and/or interrupted by D, or C_7-C_{25}aralkyl,

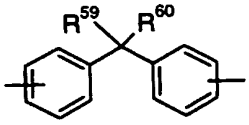
R^{64} and R^{65} are independently of each other H, C_1-C_{18}alkyl, C_1-C_{18}alkyl which is substituted by E and/or interrupted by D, C_6-C_{24}aryl, C_6-C_{24}aryl which is substituted by E, or C_2-C_{20}heteroaryl, C_2-C_{20}heteroaryl which is substituted by E, and

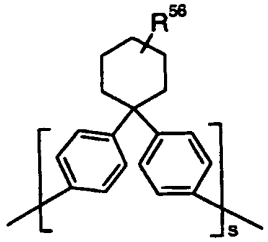
D, E, R^{56}, R^{57}, R^{58}, R^{59} and R^{60} are as defined in claim 8.

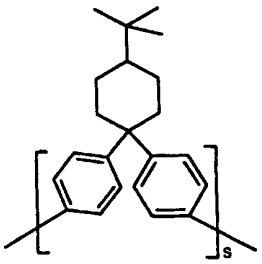
10. A polymer according to claim 8 or 9, comprising a co-monomer T which is selected from the group consisting of  ,  ,  ,  , or  ,  , in particular  , especially  ,  , or  ,  ,  , especially  , or  , especially  ,  ,

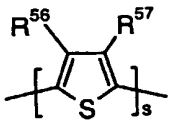


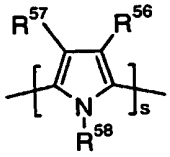
especially 

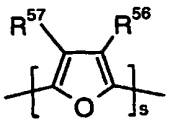


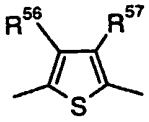


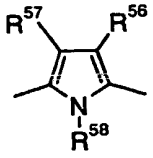
especially 

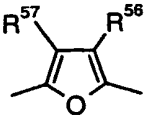


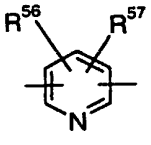


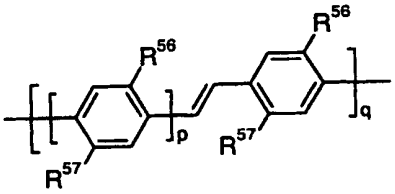
, or 

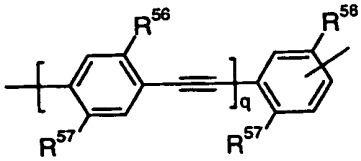
especially 



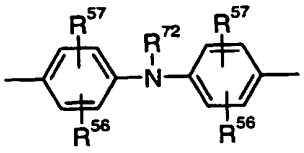
, or 





, or 

, or



wherein p is an integer from 1 to 10, especially 1, 2 or 3,

q is an integer from 1 to 10, especially 1, 2 or 3,

s is an integer from 1 to 10, especially 1, 2 or 3,

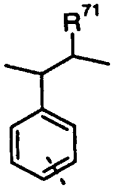
R^{72} is H, C_6-C_{18}aryl, C_6-C_{18}aryl, which is substituted by C_1-C_{18}alkyl, or C_1-C_{18}alkoxy; C_1-C_{18}alkyl; or C_1-C_{18}alkyl which is interrupted by –O-;

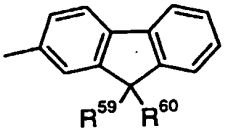
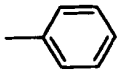
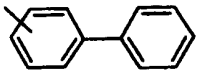
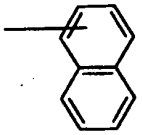
R^{56}, R^{57}, R^{58}, R^{59}, R^{60}, R^{64} and R^{65} are as defined in claim 8, or

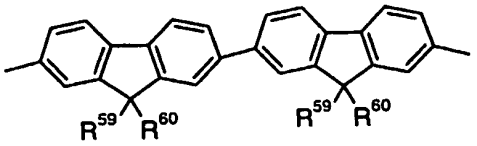
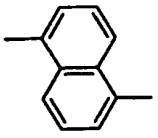
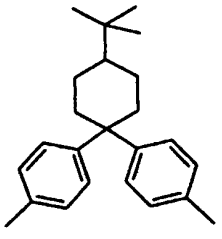
R^{59} and R^{60} together form a group of formula $=CR^{100}R^{101}$, wherein

R^{100} and R^{101} are independently of each other H, C_1-C_{18}alkyl, C_1-C_{18}alkyl which is substituted by E and/or interrupted by D, C_6-C_{24}aryl, C_6-C_{24}aryl which is substituted by E, or C_2-C_{20}heteroaryl, or C_2-C_{20}heteroaryl which is substituted by E, wherein E and D are defined as in claim 8.

11. A polymer according to any of claims 8 to 10, comprising a repeating unit of formula IIb, especially a repeating unit of formula IIa, or IIc, and a co-monomer T, wherein

X^3 is a group of the formula  , wherein the dotted line represent the bond to the pyrimidine ring and R^{71} is H, alkyl, -C≡N, or -COOR^{27}, wherein R^{27} is H, or C_1-C_{18}alkyl; which optionally can be interrupted by one or more oxygen atoms, especially C_4-C_{12}alkyl, which can be interrupted by one or two oxygen atoms,

R^3, R^4, and R^5 are independently of each other H,  ,  ,  ,  , or  ,

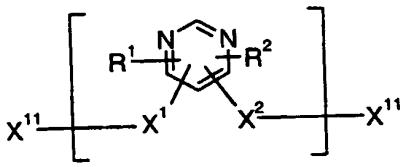
T is a group of formula  , or  , wherein R^{59} and R^{60} are independently of each other C_1-C_{18}alkyl, especially C_4-C_{12}alkyl, which can be interrupted by one or two oxygen atoms,  , or  .

12. An optical device or a component therefore, comprising a substrate and a polymer according to any of claims 1 to 11.

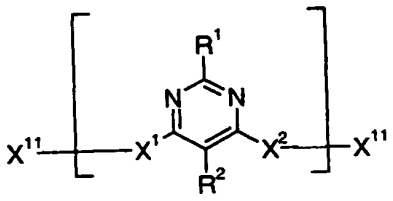
13. An optical device according to claim 12, wherein the optical device comprises an electroluminescent device.

14. An optical device according to claim 13, wherein the electroluminescent device comprises
(a) a charge injecting layer for injecting positive charge carriers,
(b) a charge injecting layer for injecting negative charge carriers,
(c) a light-emissive layer located between the layers (a) and (b) comprising a polymer according to any of claims 1 to 11.

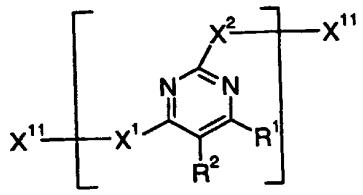
15. A monomer of the formula



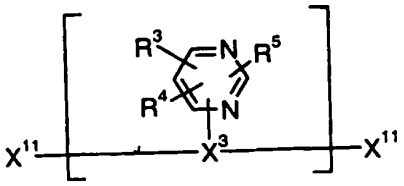
(III), especially



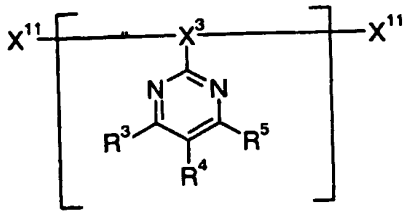
(IIIa),



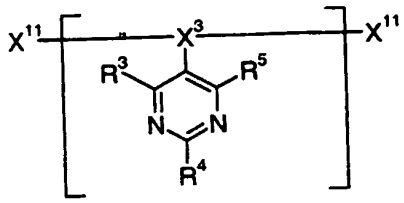
or (IIIb); and/ or



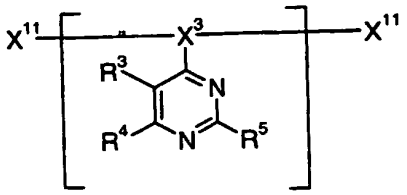
(IV), especially



(IVa),



(IVb), or



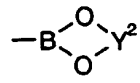
(IVc);

wherein

R^1, R^2, R^3, R^4 and R^5 are independently of each other an organic substituent, especially C_2-C_{30}aryl or a C_2-C_{26}heteroaryl, which optionally can be substituted,

X^1, X^2, and X^3 are independently of each other a divalent linking group, and

X^{11} is independently in each occurrence a halogen atom, or $-B(OH)_2$, $-B(OY^1)_2$ or



, wherein Y^1 is independently in each occurrence a C_1-C_{10}alkyl group and Y^2 is independently in each occurrence a C_2-C_{10}alkylene group, such as $-CY^3Y^4-CY^5Y^6-$, or $-CY^7Y^8-CY^9Y^{10}-CY^{11}Y^{12}-$, wherein Y^3, Y^4, Y^5, Y^6, Y^7, Y^8, Y^9, Y^{10}, Y^{11} and Y^{12} are independently of each other hydrogen, or a C_1-C_{10}alkyl group, especially $-C(CH_3)_2C(CH_3)_2-$, or $-C(CH_3)_2CH_2C(CH_3)_2-$ with the proviso that 2-phenyl-4,6-bis(p-bromophenyl)pyrimidine and 2,4,6-tris(p-bromophenyl)pyrimidine are excluded.